

the network distributes to the stator windings a current applied at one of the n inputs in order to set one of the first plurality of positions that is assigned to a respective one of the n inputs.

Please add the following new claim:

25. (New) The rotary actuator according to claim 13, wherein:
the arrangement includes a plurality of elements that are arranged in an asymmetric manner about a longitudinal axis of the rotary actuator.

Remarks

Claims 13-24 remain pending in the above-referenced application and are submitted for the Examiner's reconsideration.

Claims 13-23 stand rejected under 35 U.S.C. § 103(a) as being obvious over United States Patent No. 3,984,711 to Kordik ("Kordik") in view of United States Patent No. 6,153,953 to Isozaki et al. ("Isozaki"). Applicant has amended claims 13 and 23 to recite that the stator windings are coplanar and arranged so as to be unpaired. Support for these claim amendments is found in at least Figure 1a and page 3, lines 1-2, of the specification. In Kordik, the stator windings are arranged in a paired fashion, as evidenced by, for instance, stator winding 24a being divided into two segments that are positioned in diametrically opposed locations on the stator member 11. Indeed, the paired winding arrangement illustrated in Figures 2 and 5 of Kordik is similar to the paired arrangement illustrated in Figure 5a of the present application and characterized as undesirable by Applicant in page 2, line 23, to page 3, line 5, of the specification. Therefore, because each stator winding in Kordik is paired with one other winding, Kordik does not teach or suggest the unpaired arrangement of windings recited in the claims. As for Isozaki, because the windings in this reference are stacked one on top of each other, as illustrated in Figure 1, Isozaki does not teach or suggest coplanar stator windings that are arranged in an unpaired manner. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 24 stands rejected under 35 U.S.C. § 103(a) as being obvious over Kordik in view of Isozaki and United States Patent No. 4,803,389 to Ogawa et al. ("Ogawa"). Because Ogawa does not overcome the deficiencies noted above with respect to Kordik and Isozaki, Applicant submits that claim 24 is patentable for at least the same reasons given in support of the patentability of claims 13 and 23.

Applicant has added new claim 25, which recites that the arrangement for exerting a corrective torque includes a plurality of elements that are arranged in an asymmetric manner about a longitudinal axis of the rotary actuator. Support for this new claim is found at least in Figure 1a of the specification. Applicant submits that none of the references relied on by the Examiner, either alone or in combination with each other, teaches or suggests the invention of claim 25.

Applicant asserts that the present invention is new, non-obvious, and useful. Consideration and allowance of the claims are requested.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In The Claims

Claims 13 and 23 have been amended as follows:

13. (Amended) A rotary actuator, comprising:
- a permanently magnetized rotor;
 - a plurality of stator windings surrounding the permanently magnetized rotor in a rim-like fashion and for generating a magnetic field, the stator windings placing the permanently magnetized rotor in one of a first plurality of positions, wherein the stator windings are coplanar and arranged so as to be unpaired;
 - an arrangement for exerting a corrective torque on the permanently magnetized rotor, the arrangement for exerting the corrective torque, in a currentless state of the stator windings, placing the permanently magnetized rotor in a target position of a second plurality of positions, each position of the first plurality of positions having assigned thereto a corresponding one of the second plurality of positions as the target position; and
 - a network having n inputs and m outputs, n being a number of the first plurality of positions and m being a number of the stator windings, wherein:
 - each one of the stator windings is connected to one of the m outputs,
 - and
 - the network distributes to the stator windings a current applied at one of the n inputs in order to set one of the first plurality of positions that is assigned to a respective one of the n inputs.
23. (Amendment) A rotary switch, comprising:
- a rotary actuator that includes:
 - a permanently magnetized rotor;

a plurality of stator windings surrounding the permanently magnetized rotor in a rim-like fashion and for generating a magnetic field, the stator windings placing the permanently magnetized rotor in one of a first plurality of positions, wherein the stator windings are coplanar and arranged so as to be unpaired;

an arrangement for exerting a corrective torque on the permanently magnetized rotor, the arrangement for exerting the corrective torque, in a currentless state of the stator windings, placing the permanently magnetized rotor in a target position of a second plurality of positions, each position of the first plurality of positions having assigned thereto a corresponding one of the second plurality of positions as the target position; and

a network having n inputs and m outputs, n being a number of the first plurality of positions and m being a number of the stator windings, wherein:

each one of the stator windings is connected to one of the m outputs, and

the network distributes to the stator windings a current applied at one of the n inputs in order to set one of the first plurality of positions that is assigned to a respective one of the n inputs.